

What is claimed is:

1. A lubricating oil composition comprising a major amount of a base oil of lubricating viscosity, and
  - 5 A. 0.1 to 5.0 wt % of at least one compound selected from the group consisting of a phosphoric acid ester, a thiophosphoric acid ester, and amine salts thereof;
  - B. 0.01 to 1.0 wt % of a phosphorus acid ester and/or an amine thereof; and
  - 10 C. 0.01 to 2.0 wt % of at least one compound selected from the group consisting of an alkenyl succinimide, an alkenyl succinic acid ester, benzylamine, and derivatives thereof.
2. A lubricating oil composition comprising a major amount of base oil of lubricating viscosity, and
  - 15 A. 0.1 to 3.0 wt % of at least one compound selected from the group consisting of a phosphoric acid ester, a thiophosphoric acid ester, and amine salts thereof; and
  - B. 0.01 to 0.4 wt % of a phosphorus acid ester and/or an amine thereof; and
  - 20 C. 0.01 to 1.0 wt % of the compound selected from the group consisting of an alkenyl succinimide, an alkenyl succinic acid ester, benzylamine, and derivatives thereof.

3. A lubricating oil composition comprising a major amount of a base oil of lubricating viscosity and
  - A. 0.1 to 1.0 wt % of at least one compound selected from the group consisting of a phosphoric acid ester, a thiophosphoric acid ester, and amine salts thereof;
  - B. 0.01 to 0.2 wt % of a phosphorus acid ester and/or an amine thereof; and
  - C. 0.01 to 0.4 wt % of a compound selected from the group consisting of an alkenyl succinimide, an alkenyl succinic acid ester, benzylamine, and derivatives thereof.
4. A lubricating oil composition according to Claim 1, wherein the weight ratio of components A to B is in the range of 1:1 to 500:1.
5. A lubricating oil composition according to Claim 4, wherein the weight ratio of components A to B is in the range of 1:1 to 50:1.
6. A lubricating oil composition according to Claim 5, wherein the weight ratio of components A to B is in the range of 1:1 to 25:1.
7. A lubricating oil composition according to Claim 1, wherein the weight ratio of components B to C is in the range of 1:0.5 to 1:20.
8. A lubricating oil composition according to Claim 7, wherein the weight ratio of components B to C is in the range of 1:1 to 1:3.
9. A lubricating oil composition according to Claim 8, wherein the weight ratio of components B to C is in the range of 1:1 to 1:2.

10. A lubricating oil composition according to Claim 1, wherein the weight the total phosphorus content in the range of 50 to 5,000 mass ppm.
11. A lubricating oil composition according to Claim 10, wherein the weight the total phosphorus content in the range of 50 to 2,500 mass ppm.
- 5 12. A lubricating oil composition according to Claim 11, wherein the weight the total phosphorus content in the range of 50 to 1,000 mass ppm.
13. A lubricating oil composition according to Claim 1, wherein the base oil of lubricating viscosity has a kinematic viscosity of 5 to 900 mm<sup>2</sup>/s at 40 °C.
- 10 14. A lubricating oil composition according to Claim 1, wherein the compound selected from the group consisting of a phosphoric acid ester, a thiophosphoric acid ester, and amine salts thereof is a phosphoric acid ester.
- 15 15. A lubricating oil composition according to Claim 14, wherein the phosphoric acid ester is a trialkylphenyl phosphate.
16. A lubricating oil composition according to Claim 1, wherein the phosphorus acid ester and/or an amine thereof is a dialkyl phosphite or a trialkyl phosphite.
- 20 17. The lubricating oil composition according to Claim 1, wherein the compound selected from the group consisting of an alkenyl succinimide, an alkenyl succinic acid ester, benzylamine, and derivatives thereof is an alkyl succinic acid ester.
18. The lubricating oil composition according to Claim 17, wherein the alkyl succinic acid ester is a polybutenyl succinic acid ester.

19. A lubricating oil concentrate comprising 1.0 to 30 wt % of a compatible organic diluent and
- 5      A.    10 to 90 wt % of at least one compound selected from the group consisting of a phosphoric acid ester, a thiophosphoric acid ester, and amine salts thereof;
- B.    1 to 20 wt % of a phosphorus acid ester and/or an amine thereof; and
- C.    1 to 40 wt % of at least one compound selected from the group consisting of an alkenyl succinimide, an alkenyl succinic acid ester, benzylamine, and derivatives thereof.
- 10    20. A lubricating oil concentrate according to Claim 19, wherein the weight ratio of components A to B is in the range of 1:1 to 500:1.
21. A lubricating oil concentrate according to Claim 20, wherein the weight ratio of components A to B is in the range of 1:1 to 50:1.
22. A lubricating oil concentrate according to Claim 21, wherein the weight ratio of components A to B is in the range of 1:1 to 25:1.
- 15    23. A lubricating oil concentrate according to Claim 19, wherein the weight ratio of components B to C is in the range of 1:0.5 to 1:20.
24. A lubricating oil concentrate according to Claim 23, wherein the weight ratio of components B to C is in the range of 1:1 to 1:3.
- 20    25. A lubricating oil concentrate according to Claim 24, wherein the weight ratio of components B to C is in the range of 1:1 to 1:2.

26. A lubricating oil concentrate according to Claim 19, wherein the weight the total phosphorus content in the range of 5,000 to 80,000 mass ppm.
27. A lubricating oil concentrate according to Claim 19, wherein the weight the total phosphorus content in the range of 10,000 to 50,000 mass ppm.
- 5 28. A lubricating oil concentrate according to Claim 27, wherein the weight the total phosphorus content in the range of 15,000 to 30,000 mass ppm.
29. A lubricating oil concentrate according to Claim 19, wherein the compound selected from the group consisting of a phosphoric acid ester, a thiophosphoric acid ester, and amine salts thereof is a phosphoric acid ester.
- 10 30. A lubricating oil concentrate according to Claim 29, wherein the phosphoric acid ester is a trialkylphenyl phosphate.
31. A lubricating oil concentrate according to Claim 19, wherein the phosphorus acid ester and/or an amine thereof is a dialkyl phosphite or a trialkyl phosphite.
- 15 32. The lubricating oil concentrate according to Claim 19, wherein the compound selected from the group consisting of an alkenyl succinimide, an alkenyl succinic acid ester, benzylamine, and derivatives thereof is an alkenyl succinic acid ester.
33. The lubricating oil concentrate according to Claim 32, wherein the alkenyl succinic acid ester is a polybutenyl succinic acid ester.
- 20 34. A method for producing a lubricating oil composition comprising blending the components according to Claim 1.
35. A lubricating oil composition produced by the method according to Claim 34.

36. A method for lubricating hydraulic systems, bearing systems, gear systems, or sliding systems with the lubricating oil composition of Claim 1.